

Application No:10/646,784

Amendment Dated: April 26, 2007

Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

Page 2 of 17

AMENDMENTS TO THE SPECIFICATION**RECEIVED
CENTRAL FAX CENTER****APR 26 2007**

Please replace paragraph [0050] with the following paragraph:

[0050] The complete sequence nucleotide sequence for MIS is disclosed in U.S. Patent No.5,047,336, which is hereby incorporated by reference. The DNA sequences of this invention are selected from the group consisting of: (a) the DNA sequences

AAGGTCG CGGCAGAGGA GATAGGGGTC TGTCTGCAC AAACACCCCA CCTTCCACTC
GGCTCACTTA AGGCAGGCAG CCCAGCCCCT GGCAGCACCC ACGATGCGGG ACCTGCCTCT
CACCAGCCTG GCCCTAGTGC TGTCTGCCCT GGGGGCTCTG CTGGGACTG ASGCCCTCAG
AGCAGAGGAG CCAGCTGTGG GCACCACTGG CCTCATCTTC CGAGAAGACT TGGACTGGCC
TCCAGGCATC CCACAAGAGC CTCTGTGCCT GGTGGCACTG GCGGGGACA GCAATGGCAG
CAGCTCCCCC CTGCGGTGG TGGGGGCTCT AAGCGCTAT GAGCAGGCCT TCCTGGGGGC
CGTGCAGAGG GCGCGCTGGG GCGCCGAGA CTGGCCACC TTCGGGTCT GCAACACCGG
TGACAGGCAG GCTGCTTGC CCTCTTACG GCGGCTGGG GCCTGGCTGC GGGACCTGG
GGGCAGCGC CTGGTGTCC TACACCTGGA GGAAGSTATG TGGGGCCAG CCCCAAGCTT
GGCACCGCG TCTTCTTCA GGTGGGCGG GTCTCTTAG GGAAGATCAG GGGCTGGCAG
AGCCCCACC CTGGGCAGGG AGGCTGTGGT CTGTTCCTA GGAAGGTT GCGGTCCGT
GGCTGGAAG GTGGGCACCA CACTCTGTCC TGTCCCGAA GCCAGCTCT TAGACTTGC
CCTGCTCGG TGCCAGGAG AGAGCTGCTG CCTTCTCCC ACCCTGAAG ACGACGCAGG
GCTGGGGCC AGTGAACCC TCTTCCAC AGCCCCAGC TGTCTCAGG GCGCTGGCC
TAAGATACTC CTGCGGGGA AGGGCTTCA TCGGCACCC CAACCCAGAG ACCCCAGGGC
GGCAGCCCCA CCCACAGCCT CAGACGCAGC CCCTGCTGC CCCTGCCGTC ACCGCTCCCT
GGCTGCAGGA ASGCAGCTAA GAGGGGCACC CTGTCCCCC GCTTGAGGTC CCTGCACAG
TGGCCAGAG GGCAGGACA GATCCCAAAG ATTCCGGGG GGTGTGGCT TCAATGCTC
AGGCGTCCCC TGCTGTCCG GCTGCAGTGA CTGGGAGCC AACACCCTG CTGAGGTTCC
AGGAGCCCCC GCCTGGAGGA GCTGGCCCC CAGAGCTGGC GCTGCTGGT CTGTACCCTG
GGCTTGGCCC TGAGGTCACT GTGACGAGG CTGGGCTGCC GGGTGCCAG GTACCAAGGA
GTTGCATGG GCACTGCCC GCGCGTGGG GGGGGCATGA ATTGTGTGA GGGTCTCAG
TACTGAGAAC AGCGTAGAAC CAGTGGCGAT GGGAGGAAGG GCACCGTAG AGCGGCTG
GGTAAGCCTC CATCCAGCCG GGCTGAGCCC TGGTCTCCG AGAGCCTCTG CCGCTCCCGA
GACACCGCT ACCTGGTGT AGCGGTGGC GCGCCTGCG GGGCCTGGG CGGCTCCGGG
CTGGCCTTGA CCTGCAGCC CCGCGGAGG GGTAGGTCCG CGTGGAGAGG GACGGGGAGC
GCGGTGACT GCGCCGGG CCGCAGCCC TGAGCCAGC GCGTGCCAC CCACCGAGA
CTCCCGCTG AGTACCGCCC GGCTGCAGG ACTGCTGTT GCGACGACC ACCGCTGCTT
CACACGATG ACCCGGCCC TGCTCTGCT GCGCGGTC GAGCCCGGC CGTGCCTGC
GCACGGCCAG CTGGACACCG TGCTCTTCCC GCGCCGAGG TGCGCGCAG CACCGGACA
CGGGGCAGGA GCGGGCGGG GCGGCGTGG CTGCTGGCG CTCTCAACTC CTCCAATTGC
GGGTTCAGG CATCCGCG AACTCGAGGA GTCGCCACCC AGCGCAGACC CCTTCTGGA
GACGCTCAG CCGCTGTGC GCGCGCTGG GTCCCCCG GCGCGGCTT CCGCGCAGC
CCTGGCCCTG GATCCGACG CGCTGGCCG CTCCCCGAG GGCCTAGTCA ACCTGTGGA
CCCCGCGCG CTGGAGCGC TACTCGACG CAGGAGCCG CTGCTGCTG TGCTAGGCC
CACTGCGGC ACCACCGGG ATCTGCGCC CTGACAGAC CCCACGTCG GCGCGTGGG

10532322.1

Application No:10/646,784

Amendment Dated: April 26, 2007

Page 3 of 17

Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

CACGGCCCTG GCGCGCCCGG TGGCTGCTGA ACTGCAAGCG GCGGCTGCCG AGCTGCCAAG
CCTCCCGGGT CTGCTTCGG CCACAGCCCC GCTGCTGCGG CGCTGCTCG CGCTCTGCC
AGGAGGCCCC GCGGCTCTCG GCGATCCCCCT GCGAGCGCTG CTGCTCCTGA AGGCGCTCA
GGGCTGCGC GTGGASTGGC GCGGGCGGGA TCCTCGCGGG CCGGCTCGG CACAGCGCAG
CGCGGGGGCC ACCGCCGCG ACGGGCCGTG CGCGCTGCGC GAGCTCAGCG TAGACCTCG
CGCCGAGCGC TCCGTACTCA TCCCCGAGAC CTACCAGGCC AACAAATTGCC AGGCGTGTG
CSGCTGGCCT CAGTCCGACC GCAACCCGCG CTACGGCAAC CACGTGGTGC TGCTGCTGAA
GATGAGGCC CTGCGGCGCG CCTGGCGCG CCCACCTGC TCGTGCCCA CCGCTACGC
GGGCAAGCTG CTCATCAGCC TGTGCGAGGA ACGCATCAGC GCGCACCAG TGCCCAACAT
GGTGCCACC GAGTGTGGCT GCCGGTGACC CCTGCGCGCG GCGGACTCCT GCCCGAGGG
TCCGGACGCG CCCGAGCTCG CGCCCTTCC CATATTTATT CGGACCCCA GCATCGCCCC
AATAAGACC AGCAAGC

(the sequence of the human gene) (SEQ ID NO:1);

AGCACCC ACGATGCGGG ACCTGCCTCT
CACCAGCCTG GCCCTAGTGC TGTCTGCCCT GGGGGCTCTG CTGGGACTG AGGCCCTCAG
AGCAGAGGAG CCAGCTGTGG GCACCACTGG CCTCATCTTC CGAGAAGACT TGGACTGGCC
TCCAGGCATC CCACAAGAGC CTCGTGCTCT GGTGGCACTG GCGGGGACA GCAATGGCAG
CAGCTCCCC CTGCGGGTGG TGGGGGCTCT AAGCGCTAT GAGCAGCCT TCCTGGGGC
CGTGCAAGG GCCCGTGGG GCGCCGAGA CCTGGCCACC TTCGGGTCT GCAACACCGG
TGACAGGCAG GCTGCTCTGC CCTCTCTAG GCGGCTGGG GCCTGCTGC GGGACCTGG
GGGCGAGCGC CTGCTGTCT TACACCTGGA GGAAGTATG TGGGGCCAG CCCAAGCTT
GGCACCCTG TCTCTCTCA GGTGGGCGG GTCTCTTAG GGAAGATCAG GGGCTGGCAG
AGCCCCACC CTGGGAGGG AGGCTGTGGT CTGTCTCTA GGAAGGTT GCGGGTCCGT
GGCTTGAAG GTGGGCACCA CACTCTGTCC TGTCGCCAA GCCAGCTCT TAGACTTCC
CCTGCTCGG TGCCAGGAG AGAGCTGCTG CTTCTCTCC ACCCTGAAG ACGACGAGG
GCTCGGGGCC AGTGGAACCC TTCTTCCAC AGCCCCAGCC GTTCTCAGG GCGCTGGCC
TAGATACTC CTGCGGGGA AGGGCTTCA TCGGGCACCC CAACCCAGAG ACCCCAGGGC
GGCAGCCCA CCCACAGCT CAGACGAGC CCTGCTGC CCTGCGTC ACCGCTCCCT
GGCTGCAGGA AGGCAGTAA GAGGGCACCC CTGTCTCCC GCTTGAGTC CCTGACAG
TGGCCAGAGC GGCAGGACA GATCCAAAG ATTCCGGGG GGTGTGGCT TCAATGGCTC
AGGCGTCCC TGCTGTCCG GCTGCAGTGA CTTGGAGCC AACACCCTCG CTGAGGTTCC
AGGAGCCCC GCCTGGAGGA GCTGGCCCC CAGAGCTGGC GCTGCTGCTG CTGTACCTG
GGCTGGGCC TGAGTCACT GTGACGAGG CTGGGCTGCC GGTGCCAG GTACCAGGA
GTTCATGGG GCAGTGCCG GCGCGTGGC GGGGGCATGA ATTGTGTCA GGGTCTGCAG
TACTGAGAAC AGCGTAGAAC CAGTGGCGAT GGGAGGAAG GACCGGTAG AGCGGGCTG
GGTAAGCTC CATCCAGCG GGTGAGCCC TGGTCTCCG AGAGCCTCT CCGCTCCGA
GACACCCGCT ACCTGGTGT AGCGTGGAC CGCCCTGCG GGGCTGGCG CGGCTCCGG
CTGGCCTTGA CCTGCAGCC CGCGGAGAG GTAGGTCCG CGTGAGAGG GACGGGAGC
CGGTGCGACT GCGCCCGGC CCCAGCCCC TGAGCCAGC GCGTGCCAC CCACCGAGA
CTCCGGCTG AGTACCGCCC GGTGAGGC ACTGCTGTC GCGCAGACC ACCGCTGCTT
CACACGGATG ACCCGGCCC TGCTCTGCT GCGCGGTCC GAGCCGCGC CGCTGCTGC
GCACGGCAG CTGGACACC TGCCCTTCCC GCGCGCAGG TGCGCGCAG CACCGGACA
CGGGCAGGA GCGGGCGGG GCGCGTGGC CTGCTGCGG CTCTCAACT CTCCAATTG
GGGTTCAGG CCATCCCGG AACTCGAGGA GTGCGCACCC AGCGCAGACC CTTCTTGA
GACGCTCAG CCGCTGTGC GGGCGCTGC GGTCCCCCG GCGCGGCTT CCGCGCGCG

10532322.1

Application No:10/646,784

Amendment Dated: April 26, 2007

Page 4 of 17

Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

CCTGGCCCTG GATCCGGACG CGCTGGCCGG CTTCGCCAG GGCCTAGTCA ACCTGTCCGA
CCCCCGGCG CTGGAGCGCC TACTCGACCG CGAGGAGCG CTGCTGCTGC TGCTGAGGCC
CACTGCGGCC ACCACCGGG ATCTGCGCC CTGCACGAC CCCAGTCCG CGCCGTGGC
CACGGCCCTG GCGCGCGCG TGGTGCTGA ACTGCAAGCG GCGGCTGCG AGCTGCCAAG
CTCCCGGGT CTGCTCCCG CCACAGCCCC GCTGTGGCG CGCCTGCTCG CGCTCTGCC
AGGAGGCCCC GCGGCTCG GCGATCCCT GCGAGCGCTG CTGCTCTGA AGGCGCTGCA
GGGCTGCGG GTGGAGTGG GCGGGCGGA TCCGCGCGG CCGGTCGGG CACAGCGCAG
CGCGGGGCC ACCGCGCGG ACGGGCCGTG CGGCTGCGG GAGCTCAGG TAGACCTCG
CGCCGAGCG TCGTACTCA TCCCGAGAC CTACAGGCC AACATTGCC AGGGCGTGTG
CGGCTGGCT CAGTCCGAC GCAACCCCG CTACGGCAAC CACGTGGTGC TGCTGTGAA
GATGAGGCC CGTGGGCGG CCTGGGCGG CCCACCTGC TGCGTGCCA CGGCTACGC
GGGCAAGCTG CTCATCAGC TGTCGGAGG ACGCATCAG GCGACCAAG TGCCCAACAT
GGTGGCCACC GAGTGTGGT GCGGGTGACC CTGCGCGCG GCGGACTCCT GCGCCGAGG
TCCGAGCGG CCCCAGCTCG CGCCCTTCC CATATTATT CGGACCCCA GCACTGCCCC
AATAAGACC AGCAAGC

(the sequence of human cDNA) (SEQ ID NO:2);

CAAGGTCATG TCCCAGGAGG AGATAGGGAC CGCCCTGCAC CACAAACAGC TCTGCTCCCT CTTATAAAGT AGGGCAGCCC
AGCCCTGGA
AGCTCCAGG ATGCCCGGTG CATCTCTTC TCTGGCCCTG GTGCTGTGCG CCATGGGGGC
TCTGTGAGG CCAGGGAGCC CCAGGGAAGA AGTCTTCAGC ACCTCAGCCT TGCCAGGGA
GCAGGCCACA GCGAGCGGG CACTCATCTT TCAGCAAGCC TGGGACTGGC CACTCTCCAG
TCTGTGGCTG CCAGGCAGCC CTCTGGACCC CCTGTGCTG GTGACCTGC ATGGGAGTGG
CAACGGGAGC AGGGCCCCC TGCGGGTGGT GGGGTCTG AGCAGCTACG AGCAGCCCTT
CCTGGAGGCT GTGCGGCCA CCCACTGGGG CCTGAGTGAC TGACCACCT TCGCAGTGTG
CCCCGCTGGC AACGGGCAGC CTGTGCTGCC CCACCTGCAG CGGCTGCAG CATGGGTGGG
GGAGCCCGG GGGCGGTGGC TGGTGGTCTT GCACCTGGAG GAATGACGT GGGAGCCAAC
ACCTTGCTG AGGTTCAGG AGCCTCCGCC TGGAGGAGCC AGCCCCCAG AGCTGGCGCT
GCTGGTGGT TACCAGGGC CTGGCCTGGA GGTCACTGTC ACCGGGGCTG GGCTACCTGG
CACCCAGAGC CTCTGCCTGA CCGGGGACTC GBACTTCTG GCCTTGGTC TGGACCACC
GGAGGGGGCC TGGCGCCGGC CTGGGTTAGC CTTACCCTG CGGCGCCGTG GAAATGGTGC
GCTCCTGAGC ACTGCCAGC TGCAAGCGCT GCTGTTGGT GCGGACTCCC GCTGCTTAC
ACGAAAGACC CCAGCCCTGT TACTCTTGCT GCCGGCCCG TCTTCGGCAC CGATGCCCGC
GCACGGTCG CTGCACTTG TCCCTTCCC GCAGCCAGG GCTTCCCCCG AGCCAGAGGA
GGCACCGCC AGCGGTGAT CCTTCTGGA GACTCTCAG CGCTTGGTGC GCGCGCTTGC
GGGACCCCG GCGGAGCCT CCGCACCGG GCTGGCCTG GACCCGGGG CACTGGCTGG
TTTCCCGCAG GGCCAGGTCA ACCTGTCCGA CCGCGCGGCC CTGGAGCGCC TGCTGGACGG
CGAGGAGCG CTGCTGCTG TGCTGCCGCC GACGGCAGCC ACCACCGGG TCCCCGCAAC
GCCGCAAGGT CCAAGTCCC CTCTGTGGG CCGGGGACTA GCGCGCCGG TGGCTGCCGA
GCTTCAGGCG GTGGCGCGG AGCTGCGTGC CTTCCCGGG CTGCCTCCAG CTGCCCCACC
GCTGCTGGCG CGCTGCTGG CACTGTGCCC GGGAAACCCA GACAGCCCC GCGGCCCGCT
GCGCGCGCTG CTGCTGCTCA AAGCGCTGCA GGGCTGCGC GCTGAGTGGC GCGGCGGGA
GCGGAGCGGC TCTGCACGG GCGAGCGCAG CGCGGGGCC GCGGCTGCAG ACGGCGGTG
CGCTCTGCT GAGCTGAGCG TAGACCTGCG GCGCGAGCG TCGGTGCTCA TCCCCGAGAC
ATACCAGGCC AACAACTGCC AGGGGGCTG CGGCTGGCT CAGTCGGAAC GCAACCGCG
CTACGGCAAC CAGTGGTGC TGCTGCTAAA GATGAGGCC CGCGGCGCCA CCTGGCGCG

10532322.:

Application No:10/646,784

Amendment Dated: April 26, 2007

Page 5 of 17

Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

CCCCCCTGC TGTGTGCCCA CAGCCTACAC CGGCAAGCTC CTCATCAGCC TGTCCGAGGA
GCGCATCACT GCGCACCACG TCCCAAACAT GGTGECACCC GAATGCGGCT GCCGGTGACC
TCGCGCCGTG CTCCTCGTGC TGCCCGGGCC CGTATTATT CGGACCCCGT CATTGCCCCA
TTAAACACGG GAAGGC

(the sequence of the bovine gene) (SEQ ID NO:3);

AGCTCCAGG ATGCCGGGTC CATCTCTCTC TCTGGCCCTG GTGCTGTCGG CCATGGGGGC
TCTGCTGAGG CCAGGGACCC CCAGGGAAGA AGTCTTCAGC AACTCAGCCT TGCCAGGGA
GCAAGCCACA GGCAGCGGGG CACTCATCTT TCAGCAAGCC TGGGACTGSC CACTCTCCAG
TCTCTGGCTG CCAGGCAGCC CTCTGACCC CTTGTGCCTG GTGACCCTGC ATGGAGTGG
CAACGGGAGC AGGSCCCCC TGCGGTGGT GGGGGTCTG AGCAGCTACG AGCAGGCCTT
CCTGAGGGCT GTGCGGCGCA CCCACTGGGG CTTGAGTGAC TTGACCACCT TCGCAGTGTG
CCCCGCTGSC AACGGGACG CTGTGCTGCC CCACCTGCAG CGGCTGCAGG CATGECTGGG
GGAGCCCGSG GGGCGGTGSC TGGTGGTCCCT GCACCTGGAG GAAATGACGT GGGAGCCAAC
ACCTTGGCTG AGGTTCCAGG AGCCTCCGCC TGGAGGAGCC AGCCCCCAG AGCTGGCGCT
GCTGGTGGTG TACCCAGGSC CTGGCCTGGA GGTCACTGTC ACCGGGGCTG GGCTACCTGG
CACCCAGAGC CTCTGCCTSA CCGCGGACTC GGACTTCTTG GCCTTGGTGC TGGACCAACC
GGAGGGGCGC TGCGCGCGSC CTGGGTTAGC CCTTACCTG CGCGCCCGTG GAAATGGTGC
GCTCCTSAGC ACTGCCAGC TGACGGCGCT GCTGTTGGT GCGGACTCCG GCTGCTTAC
ACGAAAGACC CAGCCCTGT TACTCTTGCT GCCGGCCCGG TCTTCGGCAC CGATGCCCGC
GCACGGTGG CTGGACTTGG TGCCCTTCCG GCAGCCAGG GCTTCCCCG AGCCAGAGGA
GGCACCCGCC AGCGCTGATC CCTTCTGGA GACTCTACG CGCCTGGTGC GCGCGCTTGC
GGGACCCCGG GCCCGAGCCT CGCCACCGCG GCTGGCCTTG GACCCGGGCG CACTGGCTGG
TTTCCCGCAG GGCAGGTCA ACCTGTCGGA CCCCAGGCG CTGGAGCGCC TGCTGGACGG
CGAGGAGCG CTGCTGCTGC TGCTGCCGCC GACGGCAGCC ACCACGGGG TCCCGCAAC
GCCGCAAGGT CCCAAGTCCC CTCTGTGGGC CGCGGGACTA GCGCGCCGGG TGGCTGCCGA
GCTTCAGGCG GTGGCCGCCG AGCTGCGTGC CCTCCGGGG CTGCTCCAG CTGCCCCACC
GCTGCTGGCG CGCCTGCTGG CACTGTGCC GGAAGACCA GACAGCCCCG GCGGCCGCT
GCGCGCGCTG CTGCTGCTCA AAGCGCTGCA GGGCTGCGC GCTGAGTGGC GCGGGCGGGA
GCGGAGCGGC TCTGCACGG CCGAGCGCAG CGCGGGGCC GCGGCTGCAG AGGGCCGTG
CGCTCTGCGT GAGCTGAGCG TAGACCTGCG GGCCGAGCGC TCGGTGCTCA TCCCGAGAC
ATACCAGGCC AACAACTGCC AGGGGGCCCTG CGGCTGGCT CAGTCGGACC GCAACCCCG
CTACGGCAAC CAGGTGGTGC TGTGCTAAA GATGCAGGCC CGCGCGCCA CCTGGCGCG
CCCGCCCTGC TGTGTGCCCA CAGCCTACAC CGGCAAGCTC CTCATCAGCC TGTCCGAGGA
GCGCATCACT GCGCACCACG TCCCAAACAT GGTGGCCACC GAATGCGGCT GCCGGTGACC
TCGCGCCGTG CTCCTCGTGC TGCCCGGGCC CGTATTATT CGGACCCCGT CATTGCCCCA
TTAAACACGG GAAGGC

(the sequence of bovine cDNA) (SEQ ID NO:4); and

(b) DNA sequences which hybridize to the aforementioned DNA sequences and which code on
expression for a human MIS-like polypeptide or a bovine-like polypeptide and preferably have a
substantial degree of homology (more preferably, at least about 70% homology and most preferably at
least about 80% homology) and the aforementioned DNA sequences; and

10532322.1

Application No:10/646,784

Amendment Dated: April 26, 2007

Page 6 of 17

Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

(c) DNA sequences which code on expression for a polypeptide code for on expression by any of the foregoing DNA sequences. Recombinant DNA molecules containing these DNA sequences, hosts transformed with them and MIS-like polypeptides coded for on expression by them are also part of this invention.

The DNA sequences, recombinant DNA molecules, hosts and processes of this invention enable the production of MIS-like polypeptides for use in the treatment of ovarian cancer and other suitable cancers.

Also within the scope of the present invention are the polypeptide selected from the group consisting of

MRDLPLTSLALVLSALGALLGTEALRAEPAVGTSGLI FREDLD

WPPGIPQEP LCLVALGGDSNGSSSPLRVVGALSAYEQAF LGAVQRRWGPRDLATFGV

CNTGDRQAALPSLRRLGAWLRD?GGQRLVVLHLEEV TWEPTPSLRFQEP PPGGAGPPE

LALLVLYPGPGPEVTVTRAGLPGAQSLCPSRDTRYLV LAVDRPAGAWRGSGLALTLP

RGEDSRLSTARLQALLFGDDHRCFTRMTPALLLLPRSEPA LPAHGQLDTVFFPPPRP

SAELEESPPSADPFLET LTRLVRLRVPPARASAPRLALDP DALAGFPQGLVNLS DPA

ALERLLDGEEPLLLLLRPTAATTGDPAPLHDPTSAPWAT ALARRVAAELQAAAELRS

LPGLPPATAPLLARLLALCPGGPGGLGDPLRALLLL KALQGLRVEWRGRDPRGP GRAQ

RSAGATAADGPCALRELSVDLRAERSVLIPETYQANNC OGVCGW PQSDRNPRYGNHV

LLLKMQARGAALARPPCCVPTAYAGKLLISLSEERISA HHVPMVATECGCR

(the complete amino acid sequence of human MIS protein) (SEQ ID NO: 5);

RAEPAVGTSGLI FREDLD

WPPGIPQEP LCLVALGGDSNGSSSPLRVVGALSAYEQAF LGAVQRRWGPRDLATFGV

CNTGDRQAALPSLRRLGAWLRD?GGQRLVVLHLEEV TWEPTPSLRFQEP PPGGAGPPE

LALLVLYPGPGPEVTVTRAGLPGAQSLCPSRDTRYLV LAVDRPAGAWRGSGLALTLP

RGEDSRLSTARLQALLFGDDHRCFTRMTPALLLLPRSEPA LPAHGQLDTVFFPPPRP

SAELEESPPSADPFLET LTRLVRLRVPPARASAPRLALDP DALAGFPQGLVNLS DPA

ALERLLDGEEPLLLLLRPTAATTGDPAPLHDPTSAPWAT ALARRVAAELQAAAELRS

LPGLPPATAPLLARLLALCPGGPGGLGDPLRALLLL KALQGLRVEWRGRDPRGP GRAQ

10532322.1

Application No: 10/646,784

Amendment Dated: April 26, 2007

Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

Page 7 of 17

RSAGATAADGPCALRELSVDLRAERSVLIIPETYQANNCQGVCGWFPQSDRNPRYGNHVLLLKMQARGAALARPPCCVPTAYAGKLLISLSEERISAHVPMNVATECGCR

(the amino acid sequence of mature human MIS protein) (SEQ ID NO: 6);

MPGPSLSLALVLSAMGALLRPGTPRBEVFSTSAIPREQATGSGALIFQQAQDWPLSSLWLPGSPLDPLCLVTLHGSGNGSRAPLRVVGVLSSYEQAFLEAVRRTHWGLSDLTTFAVCPAGNGQFVLPFLQRLQAWLGEPPGGRWLVVLHLEEVTVBPTPLLRFQEPFPGGASPPALALLVVPYPGGLEVTVTGAGLPQTQSLCLTADSDFLALVVDHPEGAWRRPGLALTLLRRGNGALLSTAQLQALLFGADSRCTFRKTPALLLLLPARSSAPMPAHGRDLVLPFPQPRASPEPEEAPPSADPFLETTLRLVRLAGPPPARASPPRLALDPGALAGFPQGVNLSQPAALERLLDGEELLLLLLPPTAATTGVPATPQGPKSPLWAAGLARRVAELQAVAAELRALPGLPPAAPLLARLLALCPGNPDSPGGPLRALLLLKALQGLRAEWRGRERSGSARAQRSAGAAAADGPCALRELSVDLRAERSVLIIPETYQANNCQACGWPQSDRNPRYGNHVLLLLKMQARGATLARPPCCVPTAYTGKLLISLSEERISAHVPMNVATECGCR

(the complete amino acid sequence of bovine MIS protein) (SEQ ID NO: 7);

REEVFSTSAIPREQATGSGALIFQQAQDWPLSSLWLPGSPLDPLCLVTLHGSGNGSRAPLRVVGVLSSYEQAFLEAVRRTHWGLSDLTTFAVCPAGNGQFVLPFLQRLQAWLGEPPGGRWLVVLHLEEVTVBPTPLLRFQEPFPGGASPPALALLVVPYPGGLEVTVTGAGLPQTQSLCLTADSDFLALVVDHPEGAWRRPGLALTLLRRGNGALLSTAQLQALLFGADSRCTFRKTPALLLLLPARSSAPMPAHGRDLVLPFPQPRASPEPEEAPPSADPFLETTLRLVRLAGPPPARASPPRLALDPGALAGFPQGVNLSQPAALERLLDGEELLLLLLPPTAATTGVPATPQGPKSPLWAAGLARRVAELQAVAAELRALPGLPPAAPLLARLLALCPGNPDSPGGPLRALLLLKALQGLRAEWRGRERSGSARAQRSAGAAAADGPCALRELSVDLRAERSVLIIPETYQANNCQACGWPQSDRNPRYGNHVLLLLKMQARGATLARPPCCVPTAYTGKLLISLSEERISAHVPMNVATECGCR

10532322.1

Application No:10/646,784

Amendment Dated: April 26, 2007

Page 8 of 17

Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

(the amino acid sequence of mature bovine MIS protein) (SEQ ID NO: 8); and

MIS-like polypeptides related thereto.

The C- terminal amino acid and nucleotide sequences for bovine MIS are shown in FIG. 17 of U.S. Patent No. 5,661, 126, which is hereby incorporated by reference in its entirety. Fig. 17 shows the amino acid (SEQ ID NO:2, herein referred to as SEQ ID NO:9) and nucleotide (SEQ ID NO:1, herein referred to as SEQ ID NO:10) sequences of bovine MIS C-fragment, having about 109 amino acids. The C-terminal amino acid and nucleotide sequences for human MIS are shown in FIG. 18 of U.S. Patent No. 5,661, 126. Fig 18 shows the amino acid (SEQ ID NO:4, herein referred to as SEQ ID NO:11) and nucleotide (SEQ ID NO:3, herein referred to as SEQ ID NO:12) sequences of human MIS C-terminal fragment, having about 109 amino acids. A comparison of the amino acid sequence for human and bovine MIS, showing the - and C- terminal domains is shown in Cate et al., Handbook of Experimental Pharmacology 95/II: 184, edited by M.B. Spoon and A.B. Roberts, Springer-Verlag Berlin Heidelberg (1990), which are hereby incorporated by reference.

10532322.1